**IT Applications Unit 3, AOS 1, Online Communities**

Complete the following, from Chapter 2, Problem-solving Methodology, pgs, 60-80

**Problem-solving Methodology: 4 Stages**

**Analyse**

**Design**

**Development**

**Evaluate**

**Case Study:**

**Indigenous Language Trust, (ILT)**

Using the case study, ILT complete the following:

**Analysis of the problem**

This stage involves the following three steps:

1. **Determining the solution requirements**
2. What needs to be established?

Need to establish what information needs to be provide. What datais needed and what functionality must be included in the website solution.

1. How is the problem best defined?

The problem best be expressed as a question.

1. The aim of problem analysis is to ensure that the problem is clear enough to effectively analyse it and efficiently solve it. Define these two terms, efficiency and effectiveness.

Efficiency refers to the time, cost and effort that might be put into producing a solution.

Effectiveness can be defined by the quality, relevancy, timeliness and clarity of the solution.

1. What type of organisation is the ILT?

The Indigenous Language Trust is a non-profit community group aimed at preserving and developing Indigenous language in Australia.

1. In your own words, define the problem for ILT.

The problem is they looking for a way exchanging information in an efficiency way.

1. Identifying data and information needed for the solution, p 62;
   1. Need to identify where data is coming from for online community – inside or outside

During the analysis stage of problem-solving it is important to understand the type of information that is needed for the solution.

* 1. In the ILT case study what is the information needed for the solution?
* Contacts – for example, who can we contact for advice?
* Policy documents – for example, regarding the management of images of deceased people.
* Documentation regarding local Indigenous history – for example, images and audio files in which elders talk about their region.

1. Identifying the functions needed for the online community solution, p 63
   1. The functions needed for online communities can be separated into 2 distinct categories,
      * how the solution functions and

Function of a website determined by its ability to broadcast information exchange information and store knowledge.

* + - attributes of the solution. List the characteristics of each of these.

Attributes of a website involve, ease of use, user friendly, reliability, portability, robustness, ability to be maintained.

1. What are the functions of the ILT website solution?
   * + Broadcast information
     + Exchange information
     + Store knowledge
2. **Identify the constraints on the solution, p 64**
   1. List the technical and non-technical constraints.

Technical constraints include:

* The cost of the solution; this might determine whether the organisation uses freely available tools or tolls to which they subscribe
* The speed or time that it takes to access or exchange information
* How secure the solution needs to be, and whether the solution needs to be closed or open to the public
* The number of people accessing this online community at the same time.

Non-technical constraints include the requirements of users:

* Are there issues of privacy when exchanging information
* Are there copyright issues that need to be taken into consideration
* Are there cultural, gender or age constraints that need to be considered
  1. What are the constraints on the ILT solution?

Identifying the constraints is sometimes not straight forward. We can clearly calculate how many people work in each of the Indigenous Language Trust offices and determine the technical constraints that need to be taken into consideration, but the non – technical constraints are often much harder to determine.

1. **Determine the scope of the solution, p 66**
   1. What needs to be considered in the scope of the solution?

* Time – the time taken to access and exchange information via a website solution should be reduced.
* Cost – the cost associated with information exchange will be reduced by allowing people working in each of the offices to access centrally located documents and to easily exchange information by electronic means.
* Effort – the sharing of information will allow each of the offices to build on the information they have, rather than having to rediscover it when working on a project.
  1. In the ILT case study list the benefits or the scope of the solution in terms of
     1. Efficiency

Time, cost, effort.

* + 1. Effectiveness

Quality, relevancy and timeliness, completeness.